

## The Role of Research in Relation to the Novel Covid-19

**Omar Bashir Ahmed\***

*Department of Environmental and Health Research, The Custodian of Two Holy Mosques Institute for Hajj and Umrah Research, Umm Al-Qura University, Saudi Arabia*

**\*Corresponding Author:** Omar Bashir Ahmed, Department of Environmental and Health Research, The Custodian of Two Holy Mosques Institute for Hajj and Umrah Research, Umm Al-Qura University, Saudi Arabia.

**Received:** August 16, 2020; **Published:** August 29, 2020

Coronaviruses (CoVs) are known to be a large groups of viruses that cause diseases such as common cold, Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV) [1]. In the last few decades, many infectious diseases such as SARS, West Nile, H5N1, H1N1, MERS, Ebola, Zika [1], in addition to Covid-19 corona virus, have emerged [2]. SARS had a much higher case mortality rate (10%) compared with COVID-19 (between 2% - 4%) and a much lower-case mortality rate than Avian flu (60%); on the other hand, COVID-19 may be more contagious than SARS and be more similar in contagion to Avian flu. In addition, the novel virus, which causes respiratory illness and has spread rapidly over the past two weeks, has become a growing concern for global health organizations. The Covid-19 situation is changing rapidly. In most countries, researchers are unprepared for rapidly emerging infectious diseases. Scientific researchers and doctors should try to answer the questions about this situation. They must work on estimating the mortality rate of Covid-19, which is presently thought to be higher than most strains of flu [3].

Determination of the top research priorities is for covid-19 is still major challenges for researchers. Therefore, the research team response should include strategic steps forward so as to control virus through surveillance, diagnosis, prevention, vaccine development, risk management, collaboration across researching sectors [4]. In view of public health, guidance should be developed and disseminated for health care settings. Such guidance should include patient management, infection control, laboratory testing, environmental cleaning, worker safety and international travel.

Researchers should respond rapidly and effectively to such an emerging pathogen. A key issue for researchers is to help policy makers understand the pathophysiology and historical picture of the virus. Covid-19 disease surveillance is the first element of the response. Surveillance concurrently involves the health care delivery system, public health laboratories and epidemiologists [5,6]. The risks associated with the Covid-19 infection are currently considered very high because of the rapid disease transmission and its impact.

It is necessary to implement early warning systems that indicate possible outbreaks or increased risks to raise preparedness. Community-based interventions, such as staying home, social distancing, work remotely, and school dismissals, can slow the spread of Covid-19. Researchers should encourage individuals to practice everyday prevention measures, such as frequent hand washing, and covering coughs and sneezes.

They must develop an integrated control and prevention system based on coordination between different ministries, departments and agencies [7]. Research should implement methods for enabling accurate diagnosis of the viral infection.

Despite progress by medical researchers, the coronavirus vaccine will take time, and we are likely at least one year to 18 months away from substantial vaccine production. The similarity of the Covid-19 virus in genome and structure to SARS will enable scientists to draw

on research from early SARS vaccine candidates, manufacture on scale and determine antiviral drug therapies. Such steps should begin even if the production of a usable coronavirus vaccine is likely to take time.

Researchers should also consider the potential economic impacts of COVID-19 on local and global financial markets [8], in addition to the impact of mitigation measures, such as voluntary plus mandated quarantine, the stopping of mass gatherings, schools and educational institutes closure or places of work where infection has been identified, and isolation of households, towns, or cities. In conclusion, research should still focus on surveillance, prevention, risk assessments, economic and social impacts, technology development, and vaccine development for the Covid-19 virus.

### Bibliography

1. Modjarrad K. "Treatment strategies for Middle East respiratory syndrome coronavirus". *Journal of Virus Eradication* 2.1 (2016): 1-4.
2. Rothan HA and Byrareddy SN. "The epidemiology and pathogenesis of coronavirus disease (COVID-19) outbreak". *Journal of Autoimmunity* 26 (2020): 102433.
3. CDC. International Locations with Confirmed COVID-19 Cases. Centers for Disease Control and Prevention (2020).
4. Afrough B., *et al.* "Emerging viruses and current strategies for vaccine intervention". *Clinical and Experimental Immunology* 196.2 (2019): 157-166.
5. Niall Brennan., *et al.* "Improving Quality and Value in the U.S". Health Care System (Washington, D.C.: Bipartisan Policy Center (2009).
6. European Centre for Disease Prevention and Control. Outbreak of novel coronavirus disease 2019 (COVID-19): increased transmission globally - fifth update. ECDC: Stockholm; 2020. © European Centre for Disease Prevention and Control, Stockholm (2020).
7. Institute of Medicine (US) Forum on Microbial Threats. Global Infectious Disease Surveillance and Detection: Assessing the Challenges-Finding Solutions, Workshop Summary. Washington (DC): National Academies Press (US) (2007).
8. "Coronavirus: 3 potential economic and financial impacts in Australia". IG. Archived from the original (2020).

**Volume 16 Issue 9 September 2020**

**All rights reserved by Omar Bashir Ahmed.**